AlcoScan AL3100 USER'S MANUAL

%BAC / Status Display

Mouthpiece Slot

(Uses Disposable Straw Mouthpieces)

LED Range Indicator

Power Button

Ready Indicator

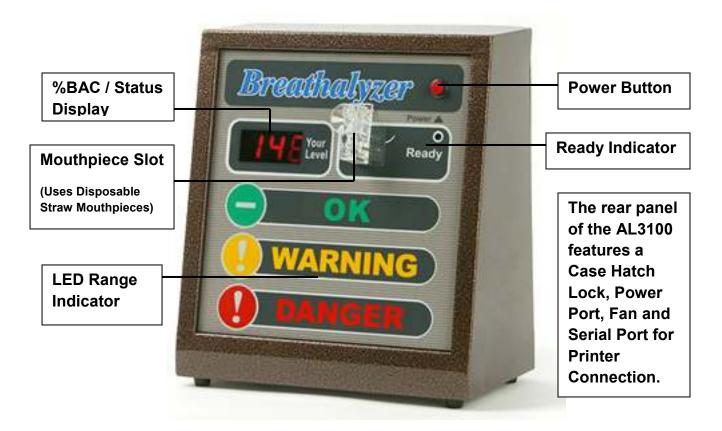**The rear panel of the AL3100 features a Case Hatch Lock, Power Port, Fan and Serial Port for Printer Connection.**

The AlcoScan AL3100 is a table-top wall-powered breathalyzer that measures a breath sample to detect alcohol in the lungs. The reading is converted to blood alcohol concentration (BAC)> The AlcoScan AL3100 uses an advanced semiconductor sensor to detect alcohol. The AL3100 uses Pre-Calibrated Replaceable Sensor Modules to eliminate the need for calibration. The sensor module should be replaced approximately once every 500 tests.

The AL3100 also features an optional detachable printer unit so that the time, date, result and name field can be recorded on readout.

Operating Instructions

1. Make sure the AL3100 is plugged into a power source using a cable from the power port.

2. If you are also using a printer, make sure the printer is attached the AL3100 using **<u>BOTH</u>** the **power cable** to draw power from the AL3100 as well as the **serial cable** to provide an operating interface to allow the printer to access results.

3. Press the Power Button to turn the device on.

4. You will see a countdown in the display. The sensor is warming up to the proper temperature.

5. At the end of the countdown, the **Ready Indicator** will light up. The device is ready to accept a breath sample.

6. Attach a mouthpiece to the mouthpiece adapter covering the mouthpiece slot.

7. As the user begins to blow into the device, an audible countdown will start from "3" and end at "0". **Important: The user must continue to blow until this countdown is complete.**

8. The device will analyze the breath sample for a few seconds.

9. After analysis, the result will be shown in the display for ~10 seconds in the form of a %BAC reading. An accompanying LED indicator will also light up showing whether the reading is in high, moderate or low ranges.

10. If the optional printer is attached, the result will also be printed showing date, time, %BAC reading and name field (the name must be written by hand directly onto the printout).

Product Details

Results Display - Displays Analyzed %BAC

Status Display
- Countdown to calibration (When device is powered, there is a countdown to set the sensor to the correct temperature)
- Ready to test: Displays "0" after countdown is complete
- Breath sampling: Displays "3", "2", "1", "0" to indicate seconds left of breath sampling time (The user should continue to blow until "0" is heard)

LED Range Indicator (Green): The detected BAC is less than 0.02%.

LED Range Indicator (Yellow): The detected BAC is between 0.02% and 0.05%.

LED Range Indicator (Red): The detected BAC is greater than 0.05%.

"Ready" Indicator Light (Indicates that the unit is ready to test)

Mouthpiece Slot
- Includes mouthpiece adapter for disposable mouthpiece use
- Detachable for cleaning purposes

Case Hatch Lock (Allows access to inner chamber of device)

Fan: Circulates air to refresh sensor
- Spins up before the test and after the test to refresh the air around the sensor, thereby extending sensor life.

Power adapter port
- Use AC adapter to DC 12V adapter to power the AL3100.

Printer Power port
- The printer draws power from the AL3100. Both the printer power cable and the serial cable must be attached to use the printer.

Serial Port
- Connect the printer to the AL3100 for operation using a serial cable. Both the printer power cable and the serial cable must be attached to use the printer.

Technical Specifications

1) Sensor Type: Semiconductor Alcohol Sensor

2) Product dimensions (in mm):
   AL3100: 240 x 130 x 260
   Printer: 119 x 89 x 130

3) Weight: 4.5 kg

4) Operating Temperature Range: -20 Celsius ~ 50 Celsius

5) Breath Sampling Time: 3~4 Second Breath Sample

6) Breath Analyzing Time: ~2 Seconds

7) Result Output Format: %BAC (Percent Blood Alcohol Concentration)

8) Measurement Range: 0.00 ~ 0.40% BAC

9) Error Range: +/-0.01% at 0.05%BAC (DOT format accuracy)

10) Power:
   AL3100: AC 220V Adapter, Output DC 12V
   Printer: The printer draws power from the AL3100

11) Maintenance:
   The AL3100 features Pre-Calibrated Replaceable Sensor Modules to minimize
maintenance. The sensor module can be conveniently ordered and replaced, eliminating the
need for traditional recalibration service.

12) Auto-Power Off:
   AL3100 features an Auto power-off function when inactive for 15 minutes.

13) Package:

   AL3100 Unit
   1 x   AL3100 Breathalyzer Unit
   1 x   AL3100M Replaceable Sensor Module
   1 x   MA6000 Mouthpiece Adapter
   1 x   AL3100 Power Adapter

   Printer for AL3100 (Optional)
   1 x   Printer Unit
   1 x   AL3100-to-Printer Power Cable
   1 x   AL3100-to-Printer Serial Cable

AL3100M Sensor Module Replacement Instructions:

1. Disconnect the AC power adapter from the AL3100 Unit.
2. Unlock and open the rear hatch door.
3. Carefully remove the sensor module from behind the breath channel. Make a note of position and configuration so that you can replace the new module to the same location.
4. Carefully disconnect the connector wire from the sensor module.
5. The old sensor module may be discarded.
6. Connect the new sensor module to the connector wire.
7. Place the sensor module back behind the breath channel in its original position.
8. Make sure the sensor module is securely mounted behind the breath channel to prevent it from slipping out of the hole.
9. Close the hatch door.
10. The power adapter may now be reconnected and the device can be used normally.

Warnings:

1. Sensor modules must be replaced approximately every 300~500 tests according to the procedure provided above to ensure continuous accuracy of the AL3100. A high frequency of positives (many high %BAC readings) can shorten the duration before replacement is required.
2. The unit requires a sufficient air sample to process an accurate reading. The user must blow firmly and steadily into the mouthpiece.
3. The breathalyzer unit contains a sensitive oxide semiconductor alcohol sensor that is continuously exposed to the environment. The sensor may degrade faster than normal if used in a poorly ventilated area.
4. The semiconductor sensor can be damaged upon contact with silicon, rubber, volatile chemicals and chlorine-based chemicals. Prevent exposure of the sensor to the such items.
5. Although the unit is designed to minimize the casual intake of some moisture, excessive liquid flow (i.e. excess saliva, liquid alcohol from the mouth) can damage the sensor or render the sensor immediately inaccurate.
6. Extremely high BAC readings can sometimes affect the following test due to the residual high-concentration breath sample from the previous test. Upon discovery of a high BAC reading, please wait at least 10 minutes before performing the next test.
7. Environmental conditions can cause the unit to be unable to reset and stabilize the sensor for the next test. If this occurs, please move it to a cleaner location free of excess dust, smoke, and chemical vapors.

Warranty

The manufacturer warrants the product to be free from defects in workmanship or material (excluding calibration) under normal use for one (1) year from the date of purchase. The manufacturer's obligation under this warranty is limited to replacing, adjusting or repairing the unit if returned along with proof of purchase. This warranty is void if the unit has been tampered with or maliciously damaged. The replacement of sensor modules is a periodic maintenance procedure required of this device in order to maintain accuracy, and as such, is not a warranty service.

Technical Support

For technical support, please contact us using the information below.

AK Solutions USA, LLC

21 Grand Ave. Suite 102

Palisades Park, NJ 07650

Toll-Free: 800-943-1016   (Monday-Friday 9AM to 6PM EST)

Tel: 201-943-9411   (Monday-Friday 9AM to 6PM EST)

Fax: 201-943-8828

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